

Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently Amended) A data link system, comprising:

- a differential transmission line having a differential input and a differential output;

- a transmitter de-emphasis circuit coupled to said input of said transmission line, said transmitter de-emphasis circuit ~~having an active configuration, and~~ including,

- a first transconductance device having a fixed gain;

- a second transconductance device, coupled in parallel with said first transconductance device, and having a variable gain; and

- a summer device for summing current outputs of said first and second transconductance devices; and

- an equalizer coupled to said differential output of said transmission line, said equalizer having an inductor connected between first and second ~~components~~ transmission lines of said differential transmission line.

2. (Previously Presented) The data link system of claim 1, wherein said transmitter de-emphasis circuit pre-distorts said transmission line input to compensate for frequency distortion caused by said transmission line.

3. (Previously Presented) The data link system of claim 1, wherein said transmitter de-emphasis circuit has a gain that increases with frequency across a frequency band of interest.

4. (Previously Presented) The data link system of claim 1, wherein a signal loss of said transmission line increases with frequency, and wherein said de-emphasis circuit has a gain that increases with frequency to offset said signal loss of said transmission line.

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Previously Presented) The data link system of claim 1, wherein said equalizer is a passive equalizer.

9. (Previously Presented) The data link system of claim 1, wherein said de-emphasis circuit reduces an amplitude of low frequency components in said input signal.

10. (Previously Presented) The data link system of claim 1, wherein said transmission line is one of a coaxial cable, an optical fiber, and a twisted pair.

11. (Canceled)

12. (Currently Amended) The data link system of claim 1, wherein said equalizer includes a resistor connected in-series with said inductor between said first and second ~~components~~ transmission lines of said transmission line.

13 - 17. (Canceled)

18. (Previously Presented) The data link system of claim 1, wherein said equalizer is a filter network having a nearly constant impedance.

19. (Previously Presented) The data link system of claim 1, wherein said equalizer is a RC filter.

20. (Previously Presented) The data link system of claim 19, wherein said RC filter has a highpass response.

21. (Previously Presented) The data link system of claim 19, wherein said RC filter has a nearly constant input impedance.

22. (Currently Amended) A data link system, comprising:
a differential transmission line having an input and an output;
a transmitter circuit with equalization coupled to said input of said transmission line; and
an equalizer coupled to said output of said differential transmission line, including an inductor between first and second ~~components~~ transmission lines of said differential transmission line.

23. (Previously Presented) The data link system of claim 22, wherein said transmitter circuit with equalization pre-distorts said transmission line input to compensate for frequency distortion caused by said transmission line.

24. (Previously Presented) The data link system of claim 22, wherein said transmitter circuit with equalization includes a de-emphasis circuit that has a gain that increases with frequency across a frequency band of interest.

25 - 28 (Canceled)